

BUCKET NO.: MSFT-3029/307007.01

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Ramachandran Venkatesh, et al.

Confirmation No.: 1161

Application No.: 10/775,282

Group Art Unit: 2162

Filing Date: February 10, 2004

Examiner: Fleurantin, Jean B

For: SYSTEM AND METHOD FOR PROVIDING USER DEFINED TYPES IN A
DATABASE

DATE OF DEPOSIT: January 26, 2005

I HEREBY CERTIFY THAT THIS PAPER IS BEING
DEPOSITED WITH THE UNITED STATES POSTAL
SERVICE AS FIRST CLASS MAIL, POSTAGE PREPAID,
ON THE DATE INDICATED ABOVE AND IS
ADDRESSED TO THE UNITED STATES PATENT AND
TRADEMARK OFFICE, P.O. BOX 1450, ALEXANDRIA,
VA 22313-1450.

Steven B. Samuels

TYPED NAME: Steven B. Samuels
REGISTRATION NO.: 37,711

02/02/2005 MAHME1 00000003 10775282

01 FC:1806

180.00 0P

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

- ☐ In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of

the above identified application as set forth in § 1.491, before the mailing date of a first Office Action on the merits of the above-identified application, or before the mailing date of a first Office Action after the filing of request for continued examination under § 1.114, no additional fee is required.

- ☒ In accordance with § 1.97(c), this Information Disclosure Statement is being filed after the period set forth in § 1.97(b) above but before the mailing date of either a Final Action under § 1.116 or a Notice of Allowance under § 1.311, or before an action that otherwise closes prosecution in the application, therefore:

☐ Certification in Accordance with § 1.97(e) is attached; or

☒ The fee of \$180.00 as set forth in § 1.17(p) is attached.

- ☐ In accordance with § 1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311 but before, or simultaneously with, the payment of the Issue Fee, therefore included are: Certification in Accordance with § 1.97(e); and the submission fee of \$180.00 as set forth in § 1.17(p).

- ☒ Copies of reference numbers **3 thru 22** listed on the attached Form PTO-1449 are enclosed herewith.

- ☒ Copies of reference numbers **23 thru 43** on the attached Form PTO 1449 are not required to be submitted pursuant to 37 CFR § 1.98(a)(2)(i).

- ☐ Copies of references - are not being submitted because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application number , filed for which a claim for priority under 35 U.S.C. § 120 has been made in the instant application.

DOCKET NO.: MSFT-3029/307007.01 - 3 -

PATENT

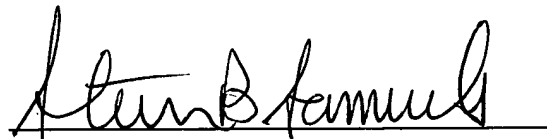
There are no listed references which are not in the English language.

Please charge any deficiency or credit any overpayment to Deposit Account No. 23-

3050. This form is submitted in duplicate.

Date:

January 26, 2005



Steven B. Samuels

Registration No. 37,711

WOODCOCK WASHBURN LLP
One Liberty Place - 46th Floor
Philadelphia, PA 19103
Telephone: (215) 568-3100
Facsimile: (215) 568-3439

© 2005 WW



Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office	Docket No. MSFT-3029/307007.01		Application No. 10/775,282	
	Applicant Ramachandran Venkatesh, et al.			
	Filing Date February 10, 2004		Group 2162	
	Confirmation No. 1161			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)				
	3	Andrews, T. et al., "Combining Language and Database Advances in an Object-Oriented Development Environment", <i>OOPSLA Proceedings</i> , October 4-8, 1987 , 430-440		
	4	Bhattacharya, S. et al., "Coordinating Backup/Recovery and Data Consistency Between Database and File Systems", <i>ACM SIGMOD</i> , June 4-6, 2002 , 500-511		
	5	Biliris, A., "The Performance of Three Database Storage Structures for Managing Large Objects", <i>ACM SIGMOD</i> , 1992 , 276-285		
	6	Buneman, P. et al., "Inheritance and Persistence in Database Programming Languages", <i>ACM</i> , 1986 , 4-15		
	7	Hsiao, H.I. et al., "DLFM: A Transactional Resource Manager", <i>MOD</i> , 2000 , 518-528		
	8	Khan, L. et al., "A Performance Evaluation of Storing XML Data in Relational Database Management Systems", <i>WIDM</i> , 2001 , 31-38		
	9	Leontiev, Y. et al., "On Type Systems for Object-Oriented Database Programming Languages", <i>ACM Computing Surveys</i> , December 2002 , 34(4), 409-449		
	10	Melton, J. et al., "SQL and Management of External Data", <i>SIGMOD Record</i> , March 2001 , 30(1), 70-77		
	11	Papiani, M. et al., "A Distributed Scientific Data Archive Using the Web, XML and SQL/MED", <i>SIGMOD Record</i> , September 1999 , 28(3), 56-62		
	12	Seshadri, P., "Enhanced Abstract Data Types in Object-Relational Databases", <i>The VLDB Journal</i> , 1998 , 7, 130-140		
EXAMINER		DATE CONSIDERED		

Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office	Docket No. MSFT-3029/307007.01	Application No. 10/775,282
	Applicant Ramachandran Venkatesh, et al.	
	Filing Date February 10, 2004	Group 2162
	Confirmation No. 1161	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
	13	Varlamis, I. et al., "Bridging XML-Schema and Relational Databases. A System for Generating and Manipulating Relational Databases Using Valid XML Documents", <i>DocEng'OL</i> , November 9-10, 2001 , 105-114
	14	Yoshikawa, M. et al., "XRel: A Path-Based Approach to Storage and Retrieval of XML Documents Using Relational Databases", <i>ACM Transactions on Internet Technology</i> , August 2001 , 1(1), 110-141
	15	Michael Stonebraker, "Inclusion of New Types in Relational Data Base Systems", <i>IEEE International Conference on Data Engineering</i> , 1986 , 1-19
	16	Berg, C., "How Do I Create Persistent Java Objects?", <i>Dr. Dobbs' Journal</i> , 1997 , 22(4), 98-101
	17	Chien, A.A., "Concurrent Aggregates (CA)-Design and Experience with a Concurrent Object-Oriented Language Based on Aggregates", <i>J. Parallel and Distributed Computing</i> , 1995 , 25(2), 174-196
	18	Darby, C., "Object Serializatin in Java 1.1. Making Objects Persistent", <i>Web Techniques</i> , 1997 , 2(9), 55, 58-59
	19	Frost., "Binary-Relational Storage Structures", <i>The Computer Journal</i> , 1982 , 25(3), 358-367
	20	Fuh, Y-C. et al., "Implementation of SQL3 Structured Types with Inheritance and Value Substitutability", <i>Digital Symposium Collection</i> , 2000 , Abstract Only, 2 pages
	21	Haverlock, K., "Object Serialization, Java, and C++", <i>Dr. Dobbs. Journal</i> , 1998 , 23(8), 32, 34, 36-37
	22	King, et al., "TriStarp-An Investigation into the Implementation and Exploitation of Binary Relational Storage Structures", <i>Proc. 8 Suppl BNCOD(British National Conference on Data Bases)</i> , 1990 , 64-84
EXAMINER		DATE CONSIDERED

Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office	Docket No. MSFT-3029/307007.01	Application No. 10/775,282
	Applicant Ramachandran Venkatesh, et al.	
	Filing Date February 10, 2004	Group 2162
	Confirmation No. 1161	

U. S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass
	23	6,070,174	05/30/00	Starek, et al.	707	206
	24	6,199,100	03/06/01	Filepp, et al.	709	203
	25	6,223,344	04/24/01	Gerard, et al.	717	170
	26	6,505,211	01/07/03	Dessloch, et al.	707	103Y
	27	6,671,687	12/30/03	Pederson, et al.	707	9
	28	6,708,196	03/16/04	Atkinson, et al.	718	102
	29	6,785,690	08/31/04	Davidson	707	103Y
	30	2002/0198891 A1	12/26/02	Li, et al.	707	102
	31	5,900,870	05/04/99	Malone, et al.	715	866
	32	6,047,291	04/04/00	Anderson, et al.	707	103

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO

EXAMINER

DATE CONSIDERED

BEST AVAILABLE COPY

Sheet 4 of 4

Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office	Docket No. MSFT-3029/307007.01	Application No. 10/775,282
	Applicant Ramachandran Venkatesh, et al.	
	Filing Date February 10, 2004	Group 2162
	Confirmation No. 1161	

U. S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Subclass
	33	2002/0152422 A1	10/17/02	Sharma, et al.	714 13
	34	2002/0091702 A2	07/11/02	Mullins	707 100
	35	6,108,004	08/22/00	Medl	715 804
	36	6,112,024	08/29/00	Almond, et al.	717 122
	37	6,199,195	03/06/01	Goodwin, et al.	717 104
	38	6,338,056	01/08/02	Dessloch, et al.	707 2
	39	6,370,541	04/09/02	Chou, et al.	707 103
	40	6,519,597	02/11/03	Cheng, et al.	707 10
	41	6,556,983	04/29/03	Altschuler, et al.	706 55
	42	6,578,046	06/10/03	Chang, et al.	707 4
	43	6,772,178	08/03/04	Mandal, et al.	707 204

FOREIGN PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Country	Translation	
				YES	NO

EXAMINER

DATE CONSIDERED